

Earned Value Measurement Methods

Abbreviation	Name	Approach	Application
LOE	Level of Effort	<ul style="list-style-type: none"> • Earned value always equal to planned value 	<ul style="list-style-type: none"> • Work of a supporting nature, impractical to plan, not directly related to a definable end product
Milestone	Weighted/ Incremental Milestone	<ul style="list-style-type: none"> • Work package budget is divided among milestones based on their weighted values • No partial credit 	<ul style="list-style-type: none"> • An event which identifies significant, measurable and verifiable progress • Best when work packages exceed two months
0/100; 50/50	Fixed Formula	<ul style="list-style-type: none"> • Work is distributed so that it adds up to 100% • % value is “earned” based on defined start and completion dates 	<ul style="list-style-type: none"> • Best used for detailed work packages of very short duration
% Complete	Percent Complete	<ul style="list-style-type: none"> • Earned value is a subjective assessment of what percentage of the total effort is completed. 	<ul style="list-style-type: none"> • Useful on work packages of 3 months or more where it is not practical to identify milestones for measuring progress
Milestone Gates	Percent Complete Estimate with Milestone Gates	<ul style="list-style-type: none"> • % complete earned value estimate up to milestone “gate” 	<ul style="list-style-type: none"> • Incorporates the objectivity of milestones as performance gates with the subjectivity of percent complete assessment
Units Complete	Units Complete	<ul style="list-style-type: none"> • Specifying the budgeted value per unit of output and applying it to the planned output quantity • $\text{Earned value} = \text{actual quantity of output completed} \times \text{budgeted rate per unit}$ 	<ul style="list-style-type: none"> • Used on effort where status is taken by counting output
Apportioned Effort	Apportioned Effort	<ul style="list-style-type: none"> • Earned value of the apportioned task always reflects same percentage earned value of the discrete base task 	<ul style="list-style-type: none"> • Work has a direct supporting performance relationship to other discrete work known as the “measurement base”

Earned Value Management Links

OMB Directives

OMB Circular A11, Part 7: Planning, Budgeting, Acquisition and Management of Capital Assets:

http://www.whitehouse.gov/omb/circulars/a11/current_year/s300.pdf

OMB Circular A 11 Part 7 Supplement - Capital Programming Guide: http://www.whitehouse.gov/omb/circulars/a11/current_year/part7.pdf

EIA 748

ANSI-EIA 748 Guidelines: <http://webstore.ansi.org/ansidocstore/product.asp?sku=ANSI%2FEIA-748-A-1998>

NDIA EIA 748 Intent Document: http://www.ndia.org/Content/ContentGroups/Divisions1/Procurement/EVMS_IntentGuide_Nov06.pdf

NDIA Surveillance Guide: http://www.ndia.org/Content/ContentGroups/Divisions1/Procurement/PDFs10/NDIA_PMSC_Surveillanceguide_Oct2004.pdf

NASA Directives

NPR 7120.5D Program and Project Management Requirements: http://nodis3.gsfc.nasa.gov/displayDir.cfm?Internal_ID=N_PR_7120_005D

NPR 7120.7 Institutional Requirements: not available at publication date

NPR 7120.8 Research and Technology: <http://nodis3.gsfc.nasa.gov/displayDir.cfm?t=NPR&c=7120&s=8>

NPR 7102.4C Program/Project Management: <http://nodis3.gsfc.nasa.gov/displayDir.cfm?t=NPD&c=7120&s=4C>

NASA FAR Supplement: <http://www.hq.nasa.gov/office/procurement/regs/nfstocA.doc>

NASA FAR EVM Policy: <http://www.hq.nasa.gov/office/procurement/regs/pn04-19.doc>

NASA Contract Performance Report Formats: <http://evm.nasa.gov/reports.html>

Related NASA Websites

NASA EVM Website: <http://evm.nasa.gov/index.html> (Contains IBR Toolkit)

NASA APPEL Curriculum Website: <http://appel.nasa.gov/node/28>

Office of the Chief Financial Officer: <http://cfo.gsfc.nasa.gov> (Business Management DRD Templates)

NASA PM Challenge Website: <http://pmchallenge.gsfc.nasa.gov/>

NASA PM Perspectives Website: <http://pmperspectives.gsfc.nasa.gov>

NASA PM Knowledge Website: <http://pmknowledge.gsfc.nasa.gov>

DOD EVM Websites and Documents

DOD Integrated Baseline Review Guide: www.acq.osd.mil/pm/currentpolicy/IBR_Guide_April_2003.doc

OSD EVM Website: <http://www.acq.osd.mil/pm/>

DOD Over Target Baseline Guide: <https://acc.dau.mil/CommunityBrowser.aspx?id=19576>

DOD CPR DID: http://www.acq.osd.mil/pm/currentpolicy/cpr_cfsr/CPR%20Final%203-30-05.pdf

DOD Integrated Master Plan(IMP)/Integrated Master Schedule (IMS) Preparation Guide: www.acq.osd.mil/sse/docs/IMP_IMS_Guide_v9.pdf

Other Relevant Links

Performance Management Institute: www.pmi.org/pages/default.aspx

College of Performance Management: <http://www.pmi-cpm.org/pages/home/index.html>